



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,571	02/09/2004	Anthony Griffo	05516.106002	8505

7590            05/08/2006

ROSENTHAL & OSHA L.L.P.  
Suite 2800  
1221 McKinney  
Houston, TX 77010

[REDACTED] EXAMINER

[REDACTED] PRONE, JASON D

[REDACTED] ART UNIT      [REDACTED] PAPER NUMBER  
3724

DATE MAILED: 05/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/774,571	GRIFFO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jason Prone	3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 24 March 2006.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 15-24 and 28-52 is/are pending in the application.
- 4a) Of the above claim(s) 15-24, 34, 35, 38, 46, 48, 49 and 51 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 28-32, 36, 37, 47, 50 and 52 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

In the response to arguments section page 6 under the tile "Claim amendments", it is stated that claim 49 is withdrawn but, in the claims, claim 49 is listed as cancelled. It is uncertain if claims 49 and 51 are to be cancelled or just withdrawn because of the statement on page 6 of the response and the fact that the subject matter of these claims still remains. Normally the claim body is deleted and the header (cancelled) remains similar to how claims 1-14 are listed. To prevent confusion, claims 49 and 51 will be considered withdrawn in the Office action.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 47 is rejected under 35 U.S.C. 102(b) as being anticipated by Hudson et al. (3,513,728).

Hudson et al. discloses the same method including forming a drill bit structure (Fig. 1) comprising machining a plurality of holes in pre-selected locations in the drill bit structure (66 and Column 4 lines 63-64 states that 56 and 58 where formed by machining, therefore, it is inherent that the hole 66 was formed by some method of machining), positioning a spacer insert in each of the holes (68), applying a hardface material over at least a portion of an outer surface of the drill bit structure (60), enlarging the plurality of machined holes to a selected diameter so as to enable disposition of

drilling inserts (78 and Column 5 lines 23-33), and removing the plurality of spacer inserts from the holes and positioning drilling inserts in each of the holes (Column 1, Abstract).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 28-31, 36, 37, 50 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hudson et al. in view of Davies et al. (2002/0035895). Hudson et al. discloses the invention including, with respect to claims 28-31 and 36, the drill bit structure comprises at least one roller cone (12), the plurality of holes are machined in substantially circumferential rows on the at least one roller cone (Fig. 1), the drill bit structure comprises at least one shoulder of a bit body (58), arranging the plurality of spacers in rows on the at least one shoulder (Fig. 3), and wherein at least a portion of the spacer insert is covered after application of the hardfacing material (60 and Fig. 4B).

However, Hudson et al. fail to disclose applying the hardfacing material comprises using a high velocity oxygen fuel hardening process and positioning drilling inserts comprises brazing drilling inserts in each hole.

Davies et al. teaches using a high velocity oxygen fuel hardening process (paragraph [0008]) and brazing drilling inserts in each hole (last sentence of paragraph [0027]). Therefore, it would have been obvious to one of ordinary skill in the art, at the

time of the invention, to have provided Hudson et al., with high velocity oxygen fuel hardening process and brazing drilling inserts, as taught by Davies et al., for a more efficient method of forming the drill bit.

5. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hudson et al. in view of Davies et al. as applied to claims 47 and 50 above, and further in view of Matthews, III et al. (6,568,491). Hudson et al. and Davies et al. disclose the invention but fail to disclose the spacer inserts comprise graphite. Matthews, III et al. teaches graphite insert (Abstract line 1). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided Hudson et al. in view of Davies et al., with graphite spacer inserts, as taught by Matthews, III et al., for a spacer material with increased hardness and durability.

#### ***Response to Arguments***

6. Applicant's arguments filed 24 March 2006 have been fully considered but they are not persuasive. Chamfer 78 is part of hole 66. The chamfer 78 widens the diameter of the hole 66 opening. Column 5 lines 23-33 of Hudson clearly disclose removing the spacer 68 and then enlarging the hole 78. The claim recites the broad term "enlarging the hole" with no specifics on the "enlarging" process. By widening the diameter of the opening of the hole, the hole is enlarged.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Prone whose telephone number is (571) 272-4513. The examiner can normally be reached on 7:30-5:00, Mon - (every other) Fri.

Art Unit: 3724

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer D. Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

May 03, 2006



Patent Examiner  
Jason Prone  
Art Unit 3724  
T.C. 3700